

pneumococcal polysaccharide vaccine (PPV) against invasive pneumococcal disease while studies examining pneumonia case-fatality rates are inclusive. Accordingly, the Centers for Disease Control (CDC) recommends that PPV be given to adults 65 and older and those with chronic diseases. The study aimed to explore if PPV was associated with a reduction in 30 and 60-day mortality among stroke patients, a portion of which was likely related to *Streptococcus pneumoniae* infection.

Methods: Short-Stay records from the Medicare Provider Analysis and Review, 2007, were used to create a retrospective cohort. 382,959 unique in-patient admissions with a diagnosis of cerebrovascular disease International Classification of Disease Version (ICD-9 430–438.9) and without a diagnosis of pneumonia or lower respiratory track infections were identified for analysis. Vaccinated cases (n=2023) were defined by the presence of ICD-9 codes V03.82 and 995.2. A multiple regression using a Cox proportional hazard model (adjusted for age, sex, race, influenza vaccination status, comorbidities, and a quality of care index) was used to assess mortality risk at 30 and 60 days after stroke admission.

Results: A 21% reduction in mortality (HR=0.79) was observed in the vaccinated group at 30 (p<0.001, 99% CI: 0.68–0.92) and a 19% reduction in mortality (HR=0.81) at 60 days (P<0.001, 99% CI: 0.69–0.94).

Conclusion: This study suggests that PPV might reduce pneumococcal-associated mortality among patients recently hospitalized for stroke.

PP-212 Antitubercular agent mediated changes in rat type I collagen and spermatogenesis indices

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Background: Connective tissue disturbances accompany wide spectra of accessory pathologies caused by tuberculosis. Necessity of tuberculosis chemotherapy adverse effects minimisation requires a comprehensive evaluation of the effects of antitubercular drugs on reproductive system and extracellular matrix proteins.

Methods: Wistar albino male rats (body weight [bw] 160–200 g) were divided into three groups: I – received pyrazinamide per os at a dose of 1000 mg/kg bw/day, II – at a dose of 2000 mg/kg bw/day, in both groups it was given for 60 days; III – intact animals. The contents of amino acids in rat type I collagens were determined using an amino acid analyzer. Morphological analyses were carried out by an optical microscope.

Results: The study of the effects of pyrazinamide administered in different doses on type I collagen amino acid contents, testis cells morphologic and morphometric parameters and spermatogenesis demonstrated presence of pyrazinamide-mediated quantitative and qualitative changes in male rat reproductive organs, spermatogenic epithelial cells and extracellular matrix proteins in comparison with norm. The largest number of changes were established at a dose 2000 mg/kg bw/day.

Conclusion: With pyrazinamide administration could be formed collagen molecules with changed helix structure, surface charge, rigidity, number and types of cross-links and specific locuses responsible for cell adhesion, interaction with chaperons and procollagen processing to collagen. Observed collagen molecules changes could hence affect the properties and correct functioning of spermatogenic epithelium and other tissues of reproductive organs. They could be caused by pyrazinamide via cytochrome P450 2E1

induction, reactive oxygen species production or direct action of this compound on protein biosynthesis processes.

PP-213 Splenic tuberculosis mimicking disseminated candidiasis in a leukaemic child

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Introduction: Tuberculosis is a very important public health problem in Sri Lanka. Tuberculosis with involvement of the spleen is uncommon. Immunodeficiency has become an important risk factor for the development of splenic tuberculosis. Complications can be life-threatening. Untreated splenic abscesses have a high mortality rate.

Case description: A 5 year old child with Acute Myelocytic Leukaemia while on intensive chemotherapy developed fever (104°F) and multiple subcutaneous nodules on left hand in the neutropenic phase while on cefoperazone-sulbactam for *Acinetobacter* spp. bacteraemia. Neutropenic phase became prolonged with total WBC ranging from 200 to 750/mm³. Fungal blood culture grew *Candida tropicalis*. He developed anaphylaxis to the test dose of amphotericin B. Fluconazole intravenously was commenced after taking biopsies of the nodules for fungal, mycobacterial and bacterial cultures and histopathology. Cultures were negative and histopathology was inconclusive. He was given 2 weeks of voriconazole after giving 1 week of fluconazole with poor response of the subcutaneous nodules but he became afebrile. 2D echocardiography and eye review were normal. Child became febrile (102°F) again. Ultrasound and computerized tomography scans of the abdomen revealed multiple abscesses. Splenectomy was performed. It showed multiple abscesses with histological appearance of caseous tuberculosis. Biopsy and abscess pus were not sent for cultures. Antituberculous therapy was commenced. Bone marrow and cerebrospinal fluid for mycobacterial cultures and polymerase chain reaction for tuberculosis were normal. It was decided to continue therapy for one year. He has now completed 7 months therapy so far and has improved symptomatically.

In conclusion tuberculosis should be considered as one cause of splenic abscesses during prolonged neutropenia especially where the disease is endemic. Sending microbiological samples for diagnosis and sensitivity pattern of drugs to direct therapy needs to be encouraged considering failure of therapy due to resistant strains.

PP-214 Identification of *Mycobacterium tuberculosis* Beijing genotype with three methods

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Background: Beijing strains constitute more than 1/4 of *Mycobacterium tuberculosis* (MTB) genotypes. Beijing genotype is considered an important genotype because of its reasonable characteristics such as: association with multi-drugs resistance TB. Accordingly these strains are reluctant to conventional TB drugs. Therefore, it is necessary to investigate the transmission rate among Beijing strains within the studied communities. In this study, three molecular methods (Spoligotyping, VNTR, and RFLP-IS6110) were used to identify transmission among patients infected with Beijing strains.

Materials and Methods: The susceptibility tests were performed on 238 *M. tuberculosis* culture positive specimens. Thereafter, the isolated Beijing genotype was subjected to VNTR and RFLP. The results of Spoligotyping